

Ferroportin 1 , hepcidin的靶分子?

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Ferroportin 1 是重要的跨膜铁输出分子, 主要分布于十二指肠和单核巨噬系统的细胞膜上, 参与机体的肠铁吸收和巨噬细胞对铁的再循环等过程。Hepcidin是调节机体铁代谢平衡的激素, 机体通过肝脏分泌的hepcidin对铁转运相关蛋白表达的调控实现机体自身的铁稳态。最新研究显示, ferroportin 1 有可能是hepcidin的靶分子。hepcidin直接作用于ferroportin 1 , 引起ferroportin 1 的内化、降解, 从而调节其在细胞膜上的表达量, 进而控制肠铁吸收和巨噬细胞对铁的再循环过程, 以维持机体的铁稳态。

Ferroportin 1 , the target of hepcidin?

The cellular iron exporter ferroportin1 (FP1) is expressed in both the duodenum and mononuclear phagocyte system. FP1 plays a role in intestinal iron absorption and iron recycling by macrophages. Hepcidin is a liver-made peptide proposed to be a central regulator in iron homeostasis, by regulating the expression of iron-related proteins. The recent identifications suggest FP1 may be the target of hepcidin. Expression of FP1 protein on the cell surface is regulated by the interaction of FP1 with hepcidin and regulates the intestinal iron absorption and iron recycling by macrophages to maintain normal iron homeostasis.

关键词

ferroportin1; hepcidin; iron homeostasis